

REMARKS

This Preliminary Amendment is to place the application in the condition that the parent application would have been had the Amendment After Final filed September 13, 2000 been entered. New claims 7-10 correspond to claims 7, 8, 11 and 13, respectively, in the Amendment after Final. Please enter the Preliminary Amendment and consider the application in condition for allowance.

This is in response to the final Office Action mailed on July 25, 2001 in which claims 1-5, 7, 8, 11 and 13 were pending. The proposed drawing corrections were objected to as constituting "new matter." Claims 1-5, 7-8, 11 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Heckmann in view of JP 5-178171. With this Amendment, drawing corrections are submitted, the specification is amended, and claim 1 is amended to claim the "stabilizing extensions" explicitly. With this Amendment, all of pending claims 1-5, 7, 8, 11 and 13 are in condition for allowance. Reconsideration and notice to that effect is respectfully requested.

With this Amendment, the specification at page 2 is amended to include the United States Patent number corresponding to the German Reference DE 4344779, specifically U.S. Pat. No. 5,638,967 issued June 17, 1997 to Heckmann. Additionally, the sentence including the reference is extended to note the referenced type of vehicle: "and the vehicles typically have a swiveling mast which extends to deliver concrete at considerable heights." This Amendment does not introduce any new matter. The cited reference is entitled "Vehicle with Built-on Swiveling Mast and Frame Support," and the reference includes the following text:

Such vehicles are intended as road vehicles for various purposes. The invention relates in particular to vehicles with a built-on concrete pump, the mast serving as a distributing boom which bears a concrete delivery pipe so as to discharge the concrete delivered by the pump. The invention will be explained in more detail in the following substantially with reference to this preferred embodiment of the invention.

Powerful vehicles of the type in question here must generally be provided with greatly projecting masts. With traveling concrete pumps the necessary projections of the mast require it to be subdivided with operating joints which also permit it to fold up for the driving mode. Such masts reach considerable heights and trigger a moment of tilt dependent on the projection and the length of the mast. The frame support removes the moment of tilt onto the base of the vehicle, thereby preventing the vehicle from overturning with the mast.

Col. 1, lines 10-27. The present application derives from the same inventor and is assigned to the same entity as the cited Heckmann patent.

The specification is amended to clarify the brief description of Figure 2. With respect to Fig. 2, the description is amended to indicate that the side view is "schematic" as suggested by the Examiner. Additionally, a proposed drawing correction to FIG. 1 as well as a proposed additional drawing (FIG. 3) are submitted for approval. FIG. 1 includes an arrow indicating the general location of the concrete pump 11, which was missing from the figures. Additional FIG. 3 is a copy of amended FIG. 1, including arrows R_v and R_H representing the "different curvatures on at least one side of the vehicle." (See p. 5, lines 11-13). Neither proposed amendment to the figures presents new matter. Both proposed amendments serve to clarify the invention as presented in the specification.

Claims 1-5, 7-8, 11 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Heckmann in view of JP 5-178171. With this Amendment, claim 1 is amended to clarify that the "the movable telescopes are stabilizing extensions when in an extended position." The vehicle of the present invention is designed to deliver concrete to an elevated location using an extendable mast. To support the extendable mast, which bears a high mast with a heavy load, the vehicle must be very heavy and well supported. The stationary and movable telescopes extend outward from the profile of the vehicle to provide frame support when the mast is extended. When the mast is extended, the vehicle is exposed to tilt moments, and the frame support stabilizes the vehicle. The weight of the vehicle due to the weight of the superstructure is critical to stability (see p. 2, line 14). Stability is a problem in this type of vehicle due to the tilting moment caused by the moment arm of a high mast with a heavy load.

To establish a prima facie case of obviousness, there must be a suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. A worker of ordinary skill in the art would not look to JP 5-178171 to modify the invention of Heckmann. There is no suggestion in either reference to do so. Furthermore, the instability presented by the three-legged lift-up device taught by JP 5-178171 is contrary to the stabilizing telescopes of the present invention.

The invention disclosed in JP 5-178171 is not suitable for a vehicle with a concrete pump. The Examiner indicated that JP 5-178171 "provides a teaching from the art that stabilizing extensions may be arranged end to end in a common carrier." The cited reference does not teach stabilizing extensions. The cited Japanese patent discloses telescopes 11 arranged end to end in a common carrier 12. However, in this Japanese reference, the length of the telescope span is not optimized. The guides are not arc shaped, and the telescopes do not extend along the longitudinal axis of the vehicle.

More importantly, the purpose in the Japanese reference is not to laterally support the vehicle during extension of a mast. The Japanese vehicle is low to the ground and has no substantial possibility of tipping during use. The purpose of the Japanese telescopes is to provide swingable support members which are able to lift and suspend the vehicle body in a balanced, controlled position above the ground. The Japanese vehicle is suspended above the ground such as to permit inspection, cleaning or mechanical work on the underside of the vehicle. (See "Purpose" in translated abstract attached). While the Japanese vehicle is suspended above the ground, the vehicle is not operable. While suspended above the ground, the Japanese vehicle has only three contact supports (See FIGS. 1 and 2 of JP 5-178171) and is actually much more likely to tip than when not suspended. Contrary to the Examiner's assertion that JP 5-178171 teaches stabilizing extensions, in fact, the JP 5-178171 reference teaches destabilizing extensions. In JP 5-178171, there is insufficient span to support a vehicle with a concrete pump having a mast producing a torque. In addition, lifting from the ground a vehicle with a concrete pump, which is already at or near its weight limit, is wholly unnecessary and undesirable, and doing so with only three support legs would be disastrous. U.S. Patent 5,638,967 offers a solution for the problem, namely achieving an appropriate support for a vehicle with a concrete pump.

In JP 5-178171, the swingable support members are somewhat slidable in the width direction, but the purpose of this width direction movement is adjustability (see last line of the abstract), not improved stability against tilting through a wider span of the telescopes. This can also be seen in the drawings of the Japanese reference showing a minimum span of the telescopes. The purpose of the

telescopes 11 in the Japanese reference is therefore completely unrelated to the possibility of tipping of the vehicle.

The field of applications of the vehicle described in the Japanese document and the purpose of the movable grounding suspension members are very different to that of the subject application. A worker skilled in the art, interested in preventing tilting of a vehicle during use of a mast, would have no motivation to turn to the three-legged, suspension mechanism of the Japanese reference which renders the Japanese vehicle more likely to tip. The fact that the Japanese reference shows a telescoping support in suspending a vehicle above the ground by three contact supports does not suggest that its telescoping support has applicability for stabilizing a masted vehicle against tilting.

There is no suggestion, in the Japanese reference or elsewhere in the art, which would motivate the worker skilled in the art to look at vehicle suspension mechanisms which render the vehicle inoperable during suspension. There is no suggestion, in the Japanese reference or elsewhere in the art, which would motivate the worker skilled in the art to look at vehicle suspension mechanisms which render the vehicle less stable. To the contrary, the present invention is directed at structure to be employed while the masted vehicle is in use, to stabilize the masted vehicle against tilting. As amended, claim 1 requires that "the movable telescopes are stabilizing extensions for stabilizing the vehicle against tilting when the swiveling extendable mast is in an extended mast position." Thus, there is no suggestion to combine the cited references. The rejection of claim 1 based on the combination is overcome, and should be withdrawn.

In addition, with respect to claims 2-5, 7-8, 11 and 13, claims 2-5, 7-8, 11 and 13 depend from amended claim 1. As previously discussed, claim 1 is allowable over the cited references. Therefore, claims 2-5, 7-8, 11 and 13 are allowable over the cited references.

With respect to claim 5, the Examiner indicated that it would have been obvious to a worker skilled in the art at the time of the invention to "include different curvatures of the moveable telescopes on at least one side of the vehicle as an obvious matter of design choice, as the specification gives no particular purpose or stated reason for the different curvatures." Contrary to the Examiner's assertion, the specification provides the following reason for allowing different curvatures:

The invention allows the telescope jibs to be disposed and designed in accordance with the requirements of the individual case. According to claim 5, the moveable telescopes of at least one, but preferably both, sides of the vehicle therefore have different curvatures and the carriers have a corresponding curvature for each telescope. **Such a design of the frame support permits different spans on the front and back frame supports and thus a better adaptation of the frame support to the tilting moments dependent on the mast.**

(page 3, lines 15-21, emphasis added). Additionally, on page 5 at lines 11-15, the Applicant noted that having different curvatures for each of the telescopes "makes it possible to select the spans of the front and back frame supports differently in accordance with the requirements of an individual case." Thus, the applicant provided reasons for the different curvatures, and the limitations of claim 5 are patentable over the cited references.


All of claims 1-5, 7-8, 11 and 13 are condition for allowance. No new matter has been introduced. Reconsideration and notice to that effect is respectfully requested. The Examiner is invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate allowance of this application.

With this amendment, all of pending claims 1-5 and 7-10 are in condition for allowance. The Examiner is invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate allowance of the application.

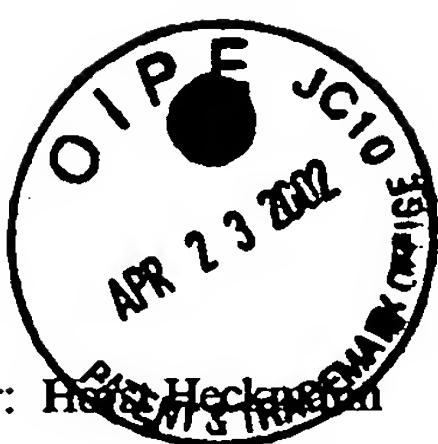
Respectfully submitted,

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Date: April 23, 2002

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-A1-

Application No.:

**APPENDIX:
MARKED UP VERSION OF SPECIFICATION AND CLAIM AMENDMENTS**

IN THE ABSTRACT

In the Abstract, line 2, delete "7" and insert therefore -70-.

In the Abstract, line 12, delete "(Fig. 1)".

IN THE SPECIFICATION

At page 1, immediately after the title, please insert --

CROSS REFERENCE TO RELATED APPLICATION(S)

This is a continuation of Application Serial No. 09/692,062 filed October 19, 2000 which was a continuation of Application Serial No. 09/141,124, filed August 27, 1998.

On page 1, line 1, delete "according to the preamble of claim 1" and insert therefore --with a superstructure having at least one swiveling mast on a slewing gear and a frame support with the aid of front and back movable telescopes disposed on each side of the long side of the vehicle. The stationary telescopes are disposed at least partly in an arc tangentially to the longitudinal direction of the vehicle and extend in each case from one of the long sides of the vehicle profile inward substantially as far as the middle of the vehicle and then on to the same long side of the vehicle profile.--

On page 1, line 17, after "profile" please delete ", while this" and insert therefore --. This--.

Please amend the paragraph beginning at page 2, line 8, such that the paragraph reads as follows:

Such vehicles are known in the art (DE 43 44 779 A1[]), corresponding to U.S. Pat. No. 5,638,967 issued June 17, 1997 to Heckmann), and the vehicles typically have a swiveling mast which extends to deliver concrete at considerable heights. The stationary telescopes of each side of the vehicle are executed here separately from each other in carriers and disposed on the vehicle

**APPENDIX:
MARKED UP VERSION OF SPECIFICATION AND CLAIM AMENDMENTS**

frame either one above the other or concentrically to each other. This leads to a considerable space requirement on both sides of the vehicle and also to additional technical effort due to the separate fastening of each stationary telescope to the vehicle frame, one consequence being an increase in vehicle weight, which is already substantially exploited by the heavy superstructure.

On page 2, line 15, after "path" please delete ", its basic idea rendered in claim 1"

On page 2, line 16, please delete the entire line.

On page 2, line 30, after "Preferably" please delete "and with the features of claim 2".

On page 3, lines 5-6, after "invention" please delete "rendered in claim 3".

On page 3, line 14, after "invention" please delete "rendered in claims 3 and 4".

Please amend the paragraph beginning at page 3, line 14 as follows:

These embodiments of the invention rendered in claims 3 and 4 are not necessary for its realization, however. The invention instead allows the telescope jibs or stabilizing extensions to be disposed and designed in accordance with the requirements of the individual case. According to claim 5 the movable telescopes of at least one, but preferably both, sides of the vehicle therefore have different curvatures and the carriers have a corresponding curvature for each telescope. Such a design of the frame support permits different spans on the front and back frame supports and thus a better adaption of the frame support to the tilting moments dependent on the mast.

On page 3, line 17, please delete "According to claim 5 the" and insert therefore
--The--.

**APPENDIX:
MARKED UP VERSION OF SPECIFICATION AND CLAIM AMENDMENTS**

On page 3, please delete Lines 22 - 24, and insert therefore --For this purpose, one of the two stationary telescopes have a curvature, and the other can be lined out, i.e. can extend in a straight line.--

Please amend the paragraph beginning at page 3, line 29 as follows:

Fig. 2 shows the object of Fig. 1 with retracted telescopes in a schematic side view.

On page 3, line 31, delete "7" and insert therefore --70--.

On page 4, line 22, please delete "realized" and insert therefore --in communication--.

On page 5, line 1, please amend the paragraph as follows:

In the embodiment the movable and stationary telescopes are congruent with their common carrier 27,28. For carriers 27 and 28 this results in an inside cross section reduced to the necessary measure, i.e. equal to or less than the horizontal profile of the vehicle. Furthermore, carriers 27,28 of stationary telescopes 23 to 26 are congruent on both sides of the vehicle with the telescopes fully extended.

On page 5, line 17, after "lined out" please insert --, i.e. extended in a straight line--.

IN THE CLAIMS

Please cancel claim 6 without prejudice. Please amend claims 1-5 as follows:

1. (Amended) A vehicle [(1) with] for delivering concrete to an elevated location, the vehicle having opposing long sides, a front and a back, the vehicle comprising:
a concrete pump having a feeding hopper;

APPENDIX:
MARKED UP VERSION OF SPECIFICATION AND CLAIM AMENDMENTS

a superstructure [(2) having] with at least one swiveling extendable mast [(3)] on
a slewing gear [(4)]; and

a frame support [(7)] [with the aid of front and back] having stabilizing extensions
for stabilizing the vehicle against tilting when the swiveling
extendable mast is in an extended mast position, the frame
support comprising:

two pairs of movable telescopes [(14-17)], each pair including a
front and a back movable telescope, one of the pairs of
movable telescopes disposed on each [side] of the long
[side] sides of the vehicle, wherein the movable telescopes
are stabilizing extensions for stabilizing the vehicle against
tilting when the swiveling extendable mast is in an extended
mast position; and [, their]

a pair of common carriers, one of the common carriers disposed
on each of the long sides of the vehicle, each common
carrier providing stationary telescopes [(23-26) being]
disposed at least partly in an arc tangentially to [the] a
longitudinal direction of the vehicle and extending in each
case from one of the long sides of the vehicle [profile]
inward substantially as far as [the] a middle of the vehicle
and then [on] outward to the same long side, each stationary
telescope cooperating with one of the movable telescopes to
allow the movable telescopes to extend outward from the
corresponding long sides of the vehicle [profile],
[characterized in that the stationary telescopes (23, 24; 25,
26) of the front and back movable telescopes (14, 15; 16,
17) of each long side of the vehicle are realized with a

**APPENDIX:
MARKED UP VERSION OF SPECIFICATION AND CLAIM AMENDMENTS**

common carrier (27, 28) and disposed] wherein the common carrier disposes the front and back movable telescopes and the cooperating stationary telescopes one behind the other such that the movable telescopes emerge from [the] associated ends [(29, 30; 31, 32)] of the common carriers [(27, 28)].

2. (Amended) The vehicle of claim 1, characterized in that the movable telescopes and the stationary telescopes [(14-16; 23-26)] are congruent with their common carriers [(27, 28)].

3. (Amended) The vehicle of [one or more of the previous claims] claim 1, characterized in that the stationary telescopes of the common carriers [(27, 28) of the stationary telescopes (23-26)] of [both] the long sides of the vehicle are congruent.

4. (Amended) The vehicle of [one or more of the previous claims] claim 1, characterized in that the arcs of the stationary telescopes [(23-26) extend in carriers (27, 28) curved] have a common curvature according to one radius, and [the] radii of curvature of [both] the common carriers on each of the [two] long sides of the vehicle are equal.

5. (Amended) The vehicle of [one or more of the previous claims] claim 1, characterized in that the movable telescopes [(14, 15; 16, 17)] of at least one long side of the vehicle have different curvatures, and the common carriers [(27, 28)] have a corresponding curvature for each telescope.

Please add new claims 7-10 as follows:

--7.(New) The vehicle of claim 2, characterized in that the stationary telescopes of the common carriers of both sides of the vehicle are congruent.

**APPENDIX:
MARKED UP VERSION OF SPECIFICATION AND CLAIM AMENDMENTS**

8.(New) The vehicle of claim 7, characterized in that the arcs of the stationary telescopes have a common curvature according to one radius, and the radii of curvature of both carriers on each of the two long sides of the vehicle are equal.

9.(New) The vehicle of claim 2, characterized in that the arcs of the stationary telescopes have a common curvature according to one radius, and the radii of curvature of both carriers on each of the long sides of the vehicle are equal.

10.(New) The vehicle of claim 3, characterized in that the arcs of the stationary telescopes have a common curvature according to one radius, and the radii of curvature of both carriers on each of the two long sides of the vehicle are equal.--